

**Method of Producing Stabilized Organic Pigment Particles and
Device Therefor**

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ABSTRACT OF THE DISCLOSURE

A method of producing self dispersible organic pigment particles stabilized by the method. The method includes modifying organic pigment particles and then contacting the surface modified particles with an aqueous vapor entrained in a carrier gas to produce the stabilized organic pigment particles. Typically the pigment particles are modified by exposing their surfaces to ozone or a plasma-activated process gas. The surface stabilizing method prevents the violent exothermic reaction, which occurs when surface modified pigment particles are exposed to ambient air. The method is accomplished in a device, which includes a reactor, means for introducing in the reactor aqueous vapor entrained in a carrier gas and an agitator assembly for deagglomerating during surface modification the pigment particles placed in the reactor. The stabilized particles of the present invention are also well suited for use in ink jet inks, pigmented waterborne and solvent borne coating compositions, and pigmented powder coating compositions.